

**Arizona Department of Environmental Quality UST Program  
Release Reporting & Corrective Action Guidance**

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## **SECTION 1: INTRODUCTION**

### **1.1 PURPOSE OF GUIDANCE**

The purpose of this guidance is to provide a tool for the consistent implementation of the administrative and technical requirements of the provisions established under Arizona Revised Statutes (A.R.S.) § 49-1001 through A.R.S. § 49-1005 (see Appendix A), and the rules adopted thereunder of the Arizona Administrative Code (A.A.C.) Title 18, Chapter 12, Articles 1 and 2 (see Appendix B). A copy of this rule is also available electronically from the Secretary of State website [http://www.sosaz.com/Rules\\_and\\_Regulations.htm](http://www.sosaz.com/Rules_and_Regulations.htm), or from your local library. This guidance focuses on the processes and procedures for identifying and investigating suspected and confirmed releases, identifying appropriate risk-based clean up levels, selecting and conducting appropriate risk-based corrective actions, and establishing reporting requirements. Furthermore, procedures are established for site-specific case closures in which water quality standards are exceeded.

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**1.2 OVERVIEW OF A.R.S. § 49-1001 THROUGH § 49-1005**

Within the provisions of A.R.S. § 49-1001 through A.R.S. § 49-1005, definitions are provided which are concurrently utilized in this guidance document. Specific detail is provided for the terms and conditions of ownership in A.R.S. § 49-1001.01. Specific aspects of some of the notification and reporting requirements discussed in this guidance for suspected and confirmed releases are addressed in A.R.S. § 49-1004, and provides the authority for the department to establish release and suspected release reporting, investigation and confirmation actions [A.R.S. § 49-1004(D)]. A.R.S. § 49-1005 establishes the authority and guidelines for hazard mitigation and corrective actions.

Although not addressed in this document, the department provides guidance on facility notification requirements, release detection system requirements, and facility record keeping requirements of A.R.S. § 49-1002 and A.R.S. § 49-1003. Please refer to the listing of other available guidance documents in the Foreword.

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**1.3 OVERVIEW OF A.A.C. TITLE 18, CHAPTER 12, ARTICLES 1 AND 2**

Articles 1 through 8 of Title 18, Chapter 12 of the A.A.C. currently contain most of the basic Underground Storage Tank (UST) elements. Article 1 serves as a UST Program “dictionary,” containing all definitions related to the balance of the articles in the Chapter. Article 1 also provides clarification of the responsibilities of owners and operators for compliance with the Chapter 12 requirements. Article 2 identifies those UST systems that are subject to the rules and the “preventive” aspects of UST operations, such as installation of new USTs, upgrading existing systems, tank management and leak detection requirements and standards for temporary and permanent closure. Article 2 also establishes requirements for sampling of contamination, reporting and investigation of suspected releases, and the requirements for taking corrective action on releases. This guidance document addresses the implementation of the release reporting and corrective action portion of Article 2.

This document **does not** address guidance for the implementation of Articles 3 through 8. Articles 3, 4, and 5 establish provisions for UST financial responsibility, excise tax, and tank fees, respectively. Article 6 provides for the administration of the UST State Assurance Fund (SAF), and Article 7 covers the UST grant program. Article 8 establishes requirements for certification of UST tank service providers.

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### **1.3.1 Applicability**

This document is intended for use by the following persons investigating releases or suspected releases, or performing corrective actions for confirmed releases at sites with leaking underground storage tanks (LUST) that are regulated by the ADEQ UST Program:

- UST owners,
- UST operators,
- persons that have come into possession or control of a property where a UST system is located,
- persons that have been determined to be “volunteers” [A.R.S. § 49-1052(l)] for purposes of the SAF,
- UST consultants and contractors,
- all other persons performing corrective actions.

If one or more of the above identified persons has completed any portion of that work required for responses to a release or suspected release, this guidance applies only to that work not entered into prior to the effective date of the rules set forth in A.A.C. R18-12-251 through 264.01 and A.A.C. R18-12-280. For example, if a site characterization report has been approved by the department prior to the effective date of the UST Program Release Reporting and Corrective Action rule, this guidance should be used for all documentation of and work for determining the risk-based corrective action standards and remediating the site to these standards prior to receiving a LUST case closure letter from the department.

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### 1.3.2 Summary of Activities for Investigation and Corrective Action Process

When a suspected release, as defined by A.R.S. § 49-1001(16)<sup>1</sup>, is discovered, the owner or operator is required to investigate and determine within 90 days if there is actually a release or if the suspicion is unfounded. The 90 day compliance period begins to run from the “suspected release discovery date” or the “suspected release notification date” which is defined in A.A.C. R18-12-101. If a system fails the tightness test or environmental contamination exists, the owner or operator is required to measure for the presence of a release<sup>2</sup>.

An oral or written notification to the department within 24 hours of discovery of a suspected release is required. Small spills or overfills of 25 gallons or less, that are contained and cleanup within 24 hours, are not required to be reported or investigated. A status report within 14 calendar days after the discovery is also required. The status report may indicate that a release determination has been made or that the suspected release is still under investigation. A written report documenting that an investigation has been conducted and that no release was found is to be submitted within 90 days after a suspected release discovery or notification date. Subsequently, the department will issue a suspected release closure letter.

If at any time a release determination is made, *i.e.* verification that a release does exist, all activities relating to the suspected release investigation cease and the owner or operator is required to notify the department of the release and begin corrective action.

The owner or operator must notify the department of the existence of a release within 24 hours of the determination and begin corrective action activities. These activities initially consist of stopping the release of regulated substances into the environment and mitigating hazardous conditions. The next objective is to investigate the LUST site and determine the circumstances of the site-specific geology and hydrology, concentrations and distribution of the contamination (*i.e.*, full extent), pathways by which the contamination has or may use to spread into uncontaminated areas, and those populations and structures that meet the definition of “receptor” on and surrounding the contaminated area.

With site-specific information, the owner or operator must determine the concentration of each chemical of concern (COC) in each contaminated medium that is protective

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<sup>1</sup> Refer to Section 2 for the definition and discussion of suspected release.

<sup>2</sup> Refer to Section 3 for the definition and discussion of a release.

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of public health and the environment. This concentration is the corrective action standard for the COC in the medium of concern. The next step is to compare the corrective action standard to the concentration that exists at the site and determine what, if any, steps must be undertaken in order to attain the standard. Levels of contamination remaining in environmental media are determined in accordance with the tiered risk-based corrective action (RBCA) process described in this guidance document, and may not present an unacceptable risk to human health and the environment (see Section 6).

Once the corrective action standard for each COC in each contaminated medium is attained, the owner or operator can submit a request to have the LUST case file closed. If the request evidences that the contamination no longer poses an unacceptable level of risk to public health or the environment, the department will approve the request and close the LUST case file.

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### **1.3.3 Process Flow Chart**

Graphically, the process described in Section 1.3.2 in its usual progression is illustrated in the flow chart in Figure 1.3.3.a.

The activities and reporting requirements which may be encountered during the course of conducting corrective actions are depicted in this flow chart. Activities are represented by rectangles and report submittals, either oral or written, are depicted by rhomboids. Junctures at which the outcome may involve decision-making and may alter the flow of chronological events are indicated by diamonds. Endpoints, where the process is concluded and no further reporting or corrective actions are required, are depicted by an ellipse. Please note that the tiered risk-based evaluation process begins concurrently with site characterization activities, but continues until the appropriate cleanup levels (see Section 6 of this guidance and A.A.C. R18-12-263.01) and corrective actions for COCs are established (see Section 5).

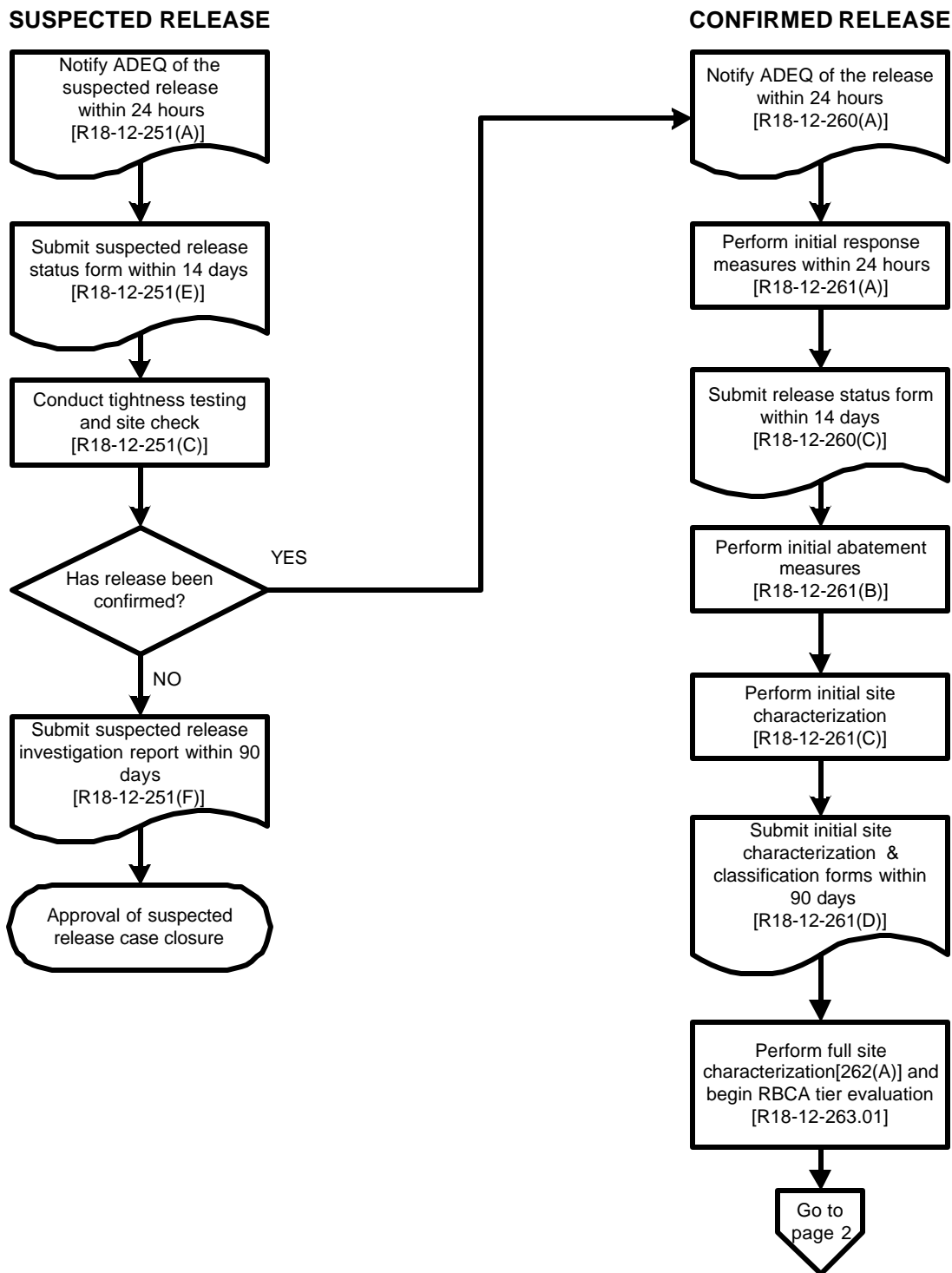
Within the flowchart, processes are depicted for suspected releases and confirmed releases. Citations can be found which refer to the section in the rule applicable to the initiation of a given step in the process.



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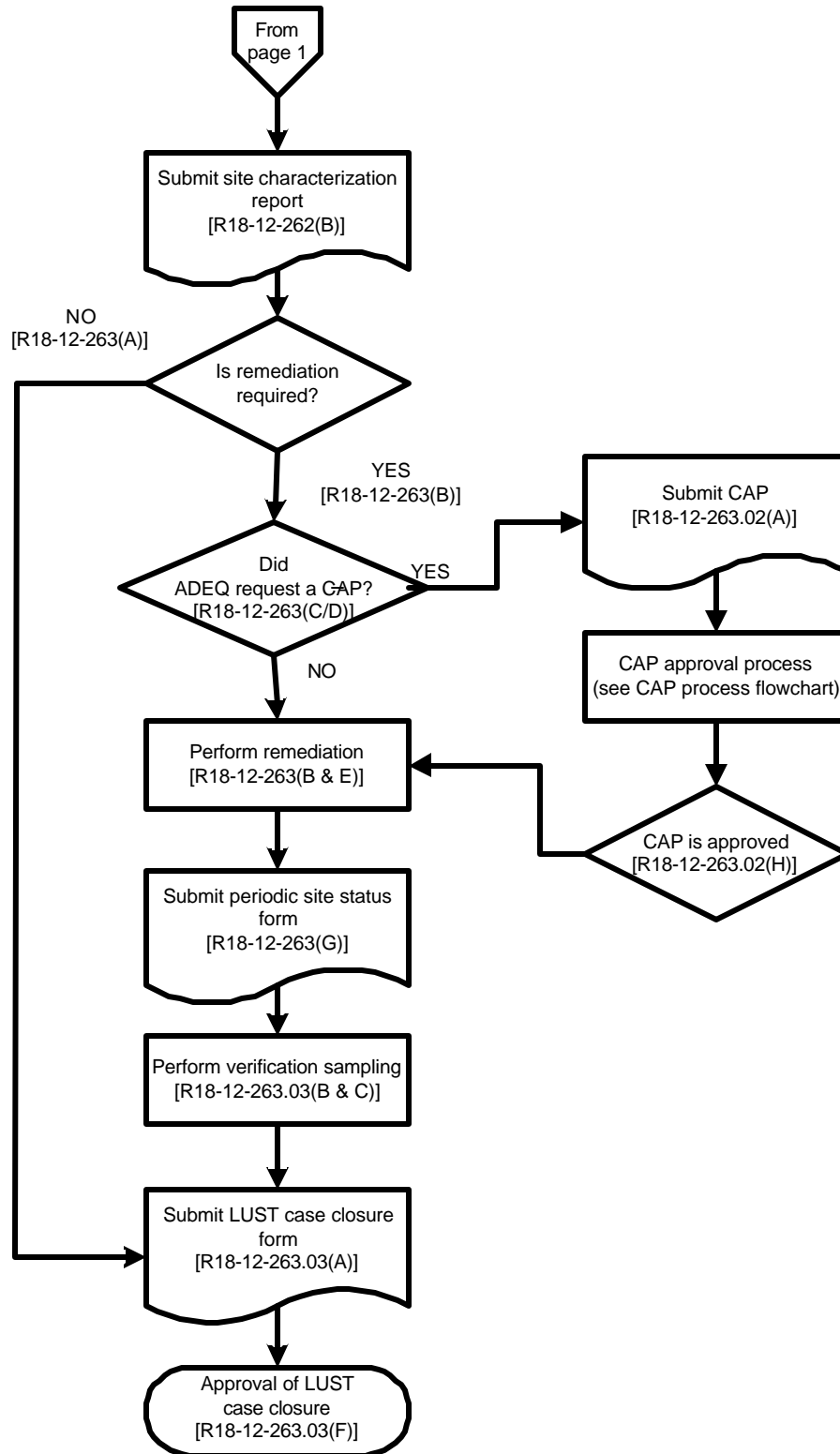
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## RELEASE REPORTING & CORRECTIVE ACTION PROCESS



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### 1.3.4 Summary of Reporting and Notification Requirements

The UST Release Reporting and Corrective Action rule contains requirements for several reports or notifications to be submitted to the department during the process of confirming a release or conducting corrective action. Although the reports and notifications have elements in common, each report or notification has a separate purpose. To provide a snapshot of the reporting and notification requirements, *i.e.*, the required submittals to the department, the following table is provided:

Table 1.3.4.a: SUMMARY OF REQUIRED SUBMITTALS		
REPORT/NOTIFICATION [ RULE CITATION ]	REPORTING TIME FRAME	TYPE
Document Submittal Form [R18-12-264(A)]	Included as cover page with all submittals to the department	department prescribed form
<b>SUSPECTED RELEASES</b>		
Notification of suspected releases [ R18-12-251(A) ]	Within 24 hours of discovery	oral or written*
Suspected release status [ R18-12-251(E) ]	Within 14 days of discovery or notification date	department prescribed form
Suspected release closure report [ R18-12-251(F) ]	Within 90 days of discovery or notification date	department prescribed form
<b>CONFIRMED RELEASES</b>		
Notification of releases [ R18-12-260(A) ]	Within 24 hours of discovery	oral or written*
Confirmed release status [ R18-12-260(C) ]	Within 14 days of release confirmation date	department prescribed form
Initial site characterization report [ R18-12-261(D) ]	Within 90 days of release confirmation date	department prescribed form
Free product report [R18-12-261.02(C)]	Within 45 days of free product discovery	department prescribed form
LUST site classification [ R18-12-261.01(D) ]	With initial site characterization report, and anytime thereafter when classification changes	department prescribed form
Site characterization report (SCR) [ R18-12-262(D) ]	As requested by ADEQ, or within 1 year of release confirmation date	department prescribed format

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Table 1.3.4.a: SUMMARY OF REQUIRED SUBMITTALS		
REPORT/NOTIFICATION [ RULE CITATION ]	REPORTING TIME FRAME	TYPE
Document Submittal Form [R18-12-264(A)]	Included as cover page with all submittals to the department	department prescribed form
Notice of soil remediation [R18-7-209(A)]	Prior to commencement of remediation	recommended form*
Periodic site status [ R18-12-263(G) ]	As requested by ADEQ, subsequent to department acceptance of SCR, or according to approved CAP	department prescribed form
Tier evaluations [ R18-12-263.01(C) ]	With SCR, or anytime thereafter for Tiers 2 and 3	department prescribed format
Corrective action plan (CAP) [ R18-12-263(C) or ( D)]	Within 120 days or as established by the department of CAP request	department prescribed format
LUST case closure form [ R18-12-263.03(A) ]	When appropriate	recommended form*

\* The appearance and organization of all required information is at the discretion of the owner/operator.

The distinguishing difference between a report form and report format is that the report form serves as a concise summary sheet reflecting the most important elements of information appearing in the attached documents to the report form. A department prescribed format for a report provides the elements of information as required by the department in the order requested. Otherwise, this information may be submitted in any style or fashion suitable to the owner or operator. Each submittal to the department, regardless of type of document, should be accompanied by the Document Submittal Form. This form serves as a cover page, providing the information on the name, location and contact information for the LUST site and owner/operator.

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## **1.4 OVERVIEW OF ARIZONA RBCA PROCESS**

RBCA, as applied to numerous state programs for leaking underground storage tanks, is based in part on the standard (E 1739-95) developed by the American Society for Testing and Materials (ASTM). RBCA is a process for selecting the appropriate steps to be taken in the investigation and response to a release of a regulated substance from a regulated UST. The goal of these steps is to reduce the time and resources committed for both owner/operators and the agency in achieving site closure, and to determine and achieve the most cost-effective cleanup standards on a site-specific basis. These steps encompass reporting requirements, initial site classification and response, full site characterization and assessment of the extent of contamination in **all** impacted or potentially impacted media (investigations for risk-based responses to contamination), development of risk-based corrective action standards, implementation of the chosen risk-based corrective action, and site closure.

Previously, risk-based clean up standards have been utilized for contaminated soils (A.A.C. R18-7-203 through 206) allowing for the use of a predetermined numeric remediation level or for calculation of an alternative level determined by site-specific risk assessment. However, the cost-effectiveness of determining and achieving site-specific soil remediation levels was not previously provided for, nor RBCA options available for sites with contaminated surface water or groundwater exceeding the numeric or narrative water quality standard specified in rule (A.A.C. R18-11-108, R18-11-109, R18-11-406, and R18-11-405). A.A.C. R18-12-263 and A.A.C. 264 provide for these latter considerations.

This document discusses data requirements and site investigation for a tiered approach to evaluating the potential risk to public health and the environment. Working within the provisions of the soil rule which essentially establishes **two** tiers for determining risk-based clean up **for soils** (*i.e.*, one generic and one site-specific), RBCA provides for **three tiers for all contaminated media**. As in the soil rule, one tier is generic and utilizes the pre-determined risk-based values which are published in existing state or federal regulations. However, RBCA has two additional tiers which are site-specific. The differences between the three tiers sets a system for the minimization of time, resources and money expended on investigation and remediation activities which are “unreasonable or unnecessary” in achieving acceptable target cleanup goals. The basis for these tiered target cleanup goals is grounded in achieving similar, acceptable levels of protection for human health and the environment.

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## **1.5 FUTURE GUIDANCE REVISIONS**

Periodically, the ADEQ will review the various sections of this guidance to insure that the regulated community has the most recent guidance regarding corrective action activities. Any revision to this document will be reviewed by the UST Policy Commission. Revisions will be issued only for those sections which are affected and will reflect the current revision date. The ADEQ will notify the public when revisions have been approved. Please contact the department directly for a printed or electronic copy of the guidance document or revisions. Electronic files will also be made available in downloadable PDF format from the department webpage, <http://www.adeq.state.az.us/environ/waste/ust/>.